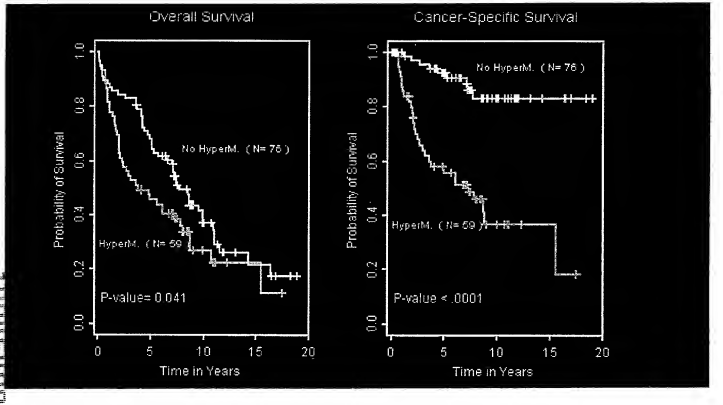

Fig. 1A

Fig. 1B

Express Mail

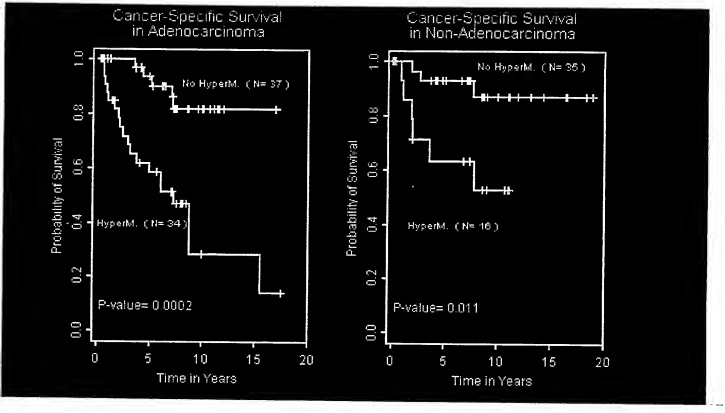

Fig. 1C

Fig. 1D

SUBSTITUTE SHEET (RULE 26)

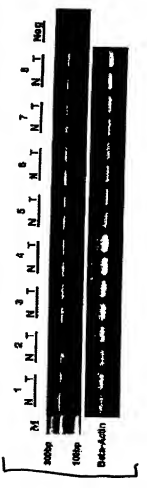
M
1 N T
2 N T
3 N T
4 N T
5 N T
6 N T
7 N T
8 N T
H2O
300bp
100bp
Beta-Actin

Fig. 2A

P 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 N M
300bp
100bp
Beta-Actin

Fig. 2F

DOCKET CONSIDOT

Fig. 2B

Fig. 2C

Fig 2D

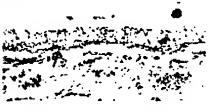

Fig. 2E

TGCTT-GhShOT

CGGAGGACAG CCGCAACCGAG CCAACGCCGG GGACTTTGTT CCCTCCACGG AGGGGACTCG GCAACTCGCA
GCGGCAGGGT CTGGGGCCGG CGCCTGGGAG GGATCTGCGC CCCCCACTCA CTCCCTAGCT GTGTTCCCGC
CGCCGCCCCG GCTAGTCTCC GGCGCTGGCG CCTATGGTCG GCCTCCGACA GCGCTCCGGA GGGACCGGGG
GAGCTCCCAG GCGCCCGGGA CTGGAGACTG ATGCATGAGG GGCCTACGGA GGCGCAGGAG CGGTGGTGAT
GGTCTGGGAA GCGGAGCTGA AGTCCCCTGG GCTTTGGTGA GGCGTGACAG TTTATCATGA CCGTGTTCAG
GCAGGAAAAC GTGGATGATT ACTACGACAC CGGCGAGGAA CTTGGCAGTG GACAGTTTGC GGTTGTGAAG
AAATGCCGTG AGAAAAGTAC CGGCCTCCAG TATGCCGCCA AATTCATCAA GAAAAGGAGG ACTAAGTCCA
GCCGGCGGGG TGTGAGCCGC GAGGACATCG AGCGGGAGGT CAGCATCCTG AAGGAGATCC AGCACCCCAA
TGTCATCACC CTGCACGAGG TCTATGAGAA CAAGACGGAC GTCATCCTGA TCTTGGAACT CGTTGCAGGT
GGCGAGCTGT TTGACTTCTT AGCTGAAAAG GAATCTTTAA CTGAAGAGGA AGCAACTGAA TTTCTCAAAC
AAATTCTTAA TGGTGTTTAC TACCTGCACT CCCTTCAAAT CGCCCACTTT GATCTTAAGC CTGAGAACAT
AATGCTTTTG GATAGAAATG TCCCCAAACC TCGGATCAAG ATCATTGACT TTGGGTTCGC CCATAAAATT
GACTTTGGAA ATGAATTTAA AAACATATTT GGGACTCCAG AGTTTGTCGC TCCTGAGATA GTCAACTATG
AACCTCTTGG TCTTGAGGCA GATATGTGGA GTATCGGGGT AATAACCTAT ATCCTCCTAA GTGGGGCCTC
CCCATTTCTT GGAGACACTA AGCAAGAAAC GTTAGCAAAT GTATCCGCTG TCAACTACGA ATTTGAGGAT
GAATACTTCA GTAATACCAG TGCCCTAGCC AAAGATTTCA TAAGAAGACT TCTGGTCAAG GATCCAAAGA
AGAGAATGAC AATTCAAGAT AGTTTGCAGC ATCCCTGGAT CAAGCCTAAA GATACACAAC AGGCACTTAG
TAGAAAAGCA TCAGCAGTAA ACATGGAGAA ATTCAAGAAG TTTGCAGCCC GGAAAAAATG GAACAATCC
GTTCGCTTGA TATCACTGTG CCAAAGATTA TCCAGGTCAT TCCTGTCCAG AAGTAACATG ACTGTTGCCA
GAAGCGATGA TACTCTGGAT GAGGAAGACT CCTTTGTGAT GAAAGCCATC ATCCATGCCA TCAACGATGA
CAATGTCCCA GGCCTGCAGC ACCTTCTGGG CTCATTATCC AACTATGATG TTAACCAACC CAACAAGCAC
GGGACACCTC CATTACTCAT TGCTGCTGGC TGTGGGAATA TTCAAATACT ACAGTTGCTC ATTAAAAGAG
GCTCGAGAAT CGATGTCCAG GATAAGGGCG GGTCCAATGC CGTCTACTGG GCTGCTGGGC ATGGCCACGT
CGATACCTTG AAATTTCTCA GTGAGAACAA ATGCCCTTTG GATGTGAAAG ACAAGTCTGG AGAGATGGCC
CTCCACGTGG CAGCTCGCTA TGGCCATGCT GACGTGGCTC AAGTTACTTG TGCAGCTTCG GCTCAAATCC

Fig. 3A

TaqMan Probe

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CAATATCCAG GACAAAGGAA GAAGAAACCC CCCTGCACTG TGCTGCTTGG CACGGCTATT ACTCTGTGGC
CAAAGCCCTT TGTGAAGCCG GCTGTAACGT GAACATCAAG AACCGAGAAG GAGAGACGCC CCTCCTGACA
GCCTCTGCCA GGGCTACCA CGACATCGTG GAGTGTCTGG CCGAACATGG AGCCGACCTT AATGCTTGCG
ACAAGGACGG ACACATTGCC CTTCATCTGG CTGTAAGACG GTGTCAGATG GAGGTAATCA AGACTCTCCT
CAGCCAAGGG TGTTTCGTCG ATTATCAAGA CAGGCACGGC AATACTCCCC TCCATGTGGC ATGTAAAGAT
GGCAACATGC CTATCGTGGT GGCCCTCTGT GAAGCAAACT GCAATTTGGA CATCTCCAAC AAGTATGGGC
GAACGCCTCT GCACCTTGCG GCCAACAACG GAATCCTAGA CGTGGTCCGG TATCTCTGTC TGATGGGAGC
CAGCGTTGAG GCGCTGACCA CGGACGGAAA GACGGCAGAA GATCTTGCTA GATCGGAACA GCACGAGCAC
GTAGCAGGTC TCCTTGCAAG ACTTCGAAAG GATACGCACC GAGGACTCTT CATCCAGCAG CTCCGACCCA
CACAGAACCT GCAGCCAAGA ATTAAGCTCA AGCTGTTGG CCACTCGGGA TCCGGGAAAA CCACCCTTGT
AGAATCTCTC AAGTGTGGGC TGCTGAGGAG CTTTTCAGA AGGCGTCGGC CCAGACTGTC TTCCACCAAC
TCCAGCAGGT TCCCACCTTC ACCCCTGGCT TCTAAGCCCA CAGTCTCAGT GAGCATCAAC AACCTGTACC
CAGGCTGCGA GAACGTGAGT GTGAGGAGCC GCAGCATGAT GTTCGAGCCG GGTCTTACCA AAGGGATGCT
GGAGGTGTTT GTGGCCCCGA CCCACCACCC GCACTGCTCG GCCGATGACC AGTCCACCAA GGCCATCGAC
ATCCAGAACG CTTATTTGAA TGGAGTTGGC GATTTCAGCG TGTGGGAGTT CTCTGGAAAT CCTGTGTATT
TCTGCTGTTA TGACTATTTT GCTGCAAATG ATCCCACGTC AATCCATGTT GTTGTCTTTA GTCTAGAAGA
GCCCTATGAG ATCCAGCTGA ACCCAGTGAT TTTCTGGCTC AGTTTCCTGA AGTCCCTTGT CCCAGTTGAA
GAACCCATAG CCTTCGGTGG CAAGCTGAAG AACCCACTCC AAGTTGTCCT GGTGGCCACC CACGCTGACA
TCATCAATGT TCCTCGACCG GCTGGAGGCG AGTTTGGATA TGACAAAGAC ACATCGTTGC TGAAAGAGAT
TAGGAACAGG TTTGGAAATG ATCTTCACAT TTCAAATAAG CTGTTTGTTC TGGATGCTGG GGCTTCTGGG
TCAAAGGACA TGAAGGTACT TCGAAATCAT CTGCAAGAAA TACGAAGCCA GATTGTTTCG GTCTGTCCTC
CCATGACTCA CCTGTGTGAG AAAATCATCT CCACGCTGCC TTCCTGGAGG AAGCTCAATG CGACCCAACCA
GCTGATGTCG CTGCAGCAGT TTGTGTACGA CGTGCAGGAC CAGCTGAACC CCCTGGCCAG CGAGGAGGAC
CTCAGGCGCA TTGCTCAGCA GCTCCACAGC ACAGGCGAGA TCAACATCAT GCAAAGTGAA ACAGTTCAGG
ACGTGCTGCT CCTGGACCCC CGCTGGCTCT GCACAAACGT CCTGGGGAAG TTGCTGTCCG TGGAGACCCC
```

Fig. 3B

TGCTT" dbnSHOT

ACGGGCGCTG	CACCACTACC	GGGGCCGCTA	CACCGTGGAG	GACATCCAGC	GCCTGGTGCC	CGACAGCGAC
GTGGAGGAGC	TGCTGCAGAT	CCTCGATGCC	ATGGACATCT	GCGCCCGGGA	CCTGAGCAGC	GGGACCATGG
TGGACGTCCC	AGCCCTGATC	AAGACAGACA	ACCTGCACCG	CTCCTGGGCT	GATGAGGAGG	ACGAGGTGAT
GGTGTATGGT	GGCGTGCGCA	TCGTGCCCGT	GGAACACCTC	ACCCCCTTCC	CATGTGGCAT	CTTTCACAAG
GTCCAGGTGA	ACCTGTGCCG	GTGGATCCAC	CAGCAAAGCA	CAGAGGGCGA	CGCGGACATC	CGCCTGTGGG
TGAATGGCTG	CAAGCTGGCC	AACCGTGGGG	CCGAGCTGCT	GGTGCTGCTG	GTCAACCACG	GCCAGGGCAT
TGAGGTCCAG	GTCCGTGGCC	TGGAGACGGA	GAAGATCAAG	TGCTGCCTGC	TGCTGGACTC	GGTGTGCAGC
ACCATTGAGA	ACGTCATGGC	CACCACGCTG	CCAGGGCTCC	TGACCGTGAA	GCATTACCTG	AGCCCCCAGC
AGCTGCGGGA	GCACCATGAG	CCCGTCATGA	TCTACCAGCC	ACGGGACTTC	TTCCGGGCAC	AGACTCTGAA
GGAAACCTCA	CTGACCAACA	CCATGGGGGG	GTACAAGGAA	AGCTTCAGCA	GCATCATGTG	CTTCGGGTGT
CACGACGTCT	ACTCACAGGC	CAGCCTCGGC	ATGGACATCC	ATGCATCAGA	CCTGAACCTC	CTCACTCGGA
GGAAACTGAG	TCGCCTGCTG	GACCCGCCCG	ACCCCCTGGG	GAAGGACTGG	TGCCTTCTCG	CCATGAACTT
AGGCCTCCCT	GACCTCGTGG	CAAAGTACAA	CACCAATAAC	GGGGCTCCCA	AGGATTTCCT	CCCCAGCCCC
CTCCACGCCC	TGCTGCGGGA	ATGGACCACC	TACCCTGAGA	GCACAGTGGG	CACCCTCATG	TCCAAACTGA
GGGAGCTGGG	TCGCCGGGAT	GCCGCAGACC	TTTTGCTGAA	GGCATCCTCT	GTGTTCAAAA	TCAACCTGGA
TGGCAATGGC	CAGGAGGCCT	ATGCCTCGAG	CTGCAACAGC	GGCACCTCTT	ACAATTCCAT	TAGCTCTGTT
GTATCCCGGT	GAGGGCAGCC	TCTGGCTTGG	ACAGGGTCTG	TTTGGACTGC	AGAACCAAGG	GGGTGATGTA
GCCCATCCTT	CCCTTTGGAG	ATGCTGAGGG	TGTTTCTTCC	TGCACCCACA	GCCAGGGGGA	TGCCCACTCC
CCCTCCGGCT	TGACCTGTTT	CTCTGCCGCT	ACCTCCCTCC	CCGTCTCATT	CCGTTGTCTG	TGGATGGTCA
TTGCAGTTTA	AGAGCAGAAC	AGATCTTTTA	CTTTGGCCGC	TTGAAAAGCT	AGTGTACCTC	CTCTCAGTGT
TTTGGACTCC	ATCTCTCATC	CTCCAGTACC	TTGCTTCTTA	CTGATAATTT	TGCTGGAATT	CCTAACTTTT
CAATGACATT	TTTTTTAACT	ATCATATTGA	TTGTCCTTTA	AAAAAGAAAA	GTGCATATTT	ATCCAAAATG
TGTATTTCTT	ATACGCTTTT	CTGTGTTATA	CCATTTCCTC	AGCTTATCTC	TTTTATATTT	GTAGGAGAAA
CTCCCATGTA	TGGAATCCCA	CTGTATGATT	TATAAACAGA	CAATATGTGA	GTGCCTTTTG	CAGAAGAGGG
TGTGTTTGAA	ATCATCGGAG	TCAGCCAGGA	GCTGTCACCA	AGGAAACGCT	ACCTCTCTGT	CCCTTGCTGT

Fig. 3C

TCGTF "CONSTRUCT"

```
ATGCTGATCA TCGCCAGAGG TGCTTCACCC TGAGTTTTGT TTTGTATTGT TTTCTGACAG TTTTTCTGTT
TTGTTTGGCA AGGAAAGGGG AGAAGGGAAT CCTCCTCCAG GGTGATTTTA TGATCAGTGT TGTTGCTCTA
GGAAGACATT TTTCCGTTTG CTTTTGTTCC AATGTCAATG TGAACGTCCA CATGAAACCT ACACACTGTC
ATGCTTCATC ATTCCCTCTC ATCTCAGGTA GAAGGTTGAC ACAGTTGTAG GGTTACAGAG ACCTATGTAA
GAATTCAGAA GACCCCTGAC TCATCATTTG TGGCAGTCCC TTATAATTGG TGCATAGCAG ATGGTTTCCA
CATTTAGATC CTGGTTTCAT AACTTCCTGT ACTTGAAGTC TAAAAGCAGA AAATAAAGGA AGCAAGTTTT
CTTCCATGAT TTTAAATTGT GATCGAGTTT TAAATTGATA GGAGGGAACA TGTCCTAATT CTTCTGTCCT
GAGAAGCATG TAATGTTAAT GTTATATCAT ATGTATATAT ATATATGCAC TATGTATATA CATATATATT
AATACTGGTA TTTTTACTTA ATCTATAAAA TGTCGTTAAA AAGTTGTTTG TTTTTTTCTT TTTTATAAAA
TAAACTGTTG CTCGTTAAAA AAAAAAAAAA
```

Fig. 3D

TOCTT "OOTSTOOT

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ATGGCAGGGT TCTCTCCTTG GCGGCGGCGG CAGCGGCGGA GGCGGCGGCG GCGGCGGGCG AGGCACGCTT
CGCGGGCAGC ACCAGAACTG GTCGGTGATT TAGGTAGTTT CCTGTTGTTG GGATCCACCT TTCTCTCGAC
AGGCACGACA CTGCCCTTCA TTACTTCAGT TGAAATCGTC TCCAGGTACC TCTGCGCGCG GGGGTCGGGC
CGCGCGGGGC ATCACGGCCC TCGTCGTGCC AGGCCTCGCG TGGCAACCTC GGCTTTCCCT GCTCAGGAGC
CTCGTGTCTT TCTCCGCAGC GCTTTGCCAG CCGGCCGGCT TTCCCCTTCC ACCACACACC TCCACCTGGT
CACAGCAGAT AACCCAGCAG CCAACTGGCT TCATGCGCGC TCCACTCGGA AAAAGCGGTG CCCCTATACA
AAACACCAGA CCCTGGAACT GGAGAAAGAG TTTCTGTTCA ACATGTACCT CACCAGGGAC CGCAGGTACG
AGGTGGCTCG ACTGCTCAAC CTCACCGAGA GGCAGGTCAA GATCTGGTTC CAGAACCGCA GGATGAAAAT
GAAGAAAATC AACAAAGACC GAGCAAAAGA CGAGTGA
```

Fig. 4